

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012754**Date Inspected:** 13-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Li Yang and Wu Zhi Cheng	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG Trial Assembly	

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 5BW (FL3 to Bottom Plate)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts connecting FL3 flange to the Bottom Plate at Panel Point (PP) 32, PP 33 and PP 34 for Segment 5BW. Inspected bolts tension on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00278 Dated March 13, 2010.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required was 567 N-m,

Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required was 567 N-m and

Bolt sizes used were M24 x 70 RC Set# DHGM240010 and final torque required was 560 N-m

Manual Torque wrench was been used with Sr. No. XQ2-584.

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

---

Note: Few bolts at PP 32, PP 33 and PP 34 bolts not installed due to the temporary bolts been installed. Please refer the pictures attached below for more comprehensive details.

### Segment 9AW

This QA Inspector performed Offset measurement for Deck Panel to Deck Panel Diaphragm from East facing between the U-Ribs to U-Ribs from U-Rib 1 through to 27 and from West facing between the all U-Ribs to U-Ribs from U-Rib 28 through to 39 for Segment 9AW at Panel Point (PP) 72. Report forwarded to team leader for further action.

### Lift 5 East

This QA Inspector performed dimension verification for Floor Beam Stiffener to Longitudinal Diaphragm (LD) for Radius at Panel Point (PP) 29, PP 30, PP 31, PP 32, PP 33, PP 34, PP 35 and PP 36 for Segment 5AE, 5BE and 5CE Cross Beam and Bike Path side (West and East side of the Floor Beam).

### Lift 5 West

This QA Inspector performed dimension verification for Floor Beam Stiffener to Longitudinal Diaphragm (LD) for Radius at Panel Point (PP) 29, PP 30, PP 31, PP 32, PP 33, PP 34, PP 35 and PP 36 for Segment 5AW, 5BW and 5CW Cross Beam and Counter Weight side (West and East side of the Floor Beam).

### Lift 6 East

This QA Inspector performed dimension verification for Floor Beam Stiffener to Longitudinal Diaphragm (LD) for Radius at Panel Point (PP) 37, PP 38, PP 39, PP 40, PP 41, PP 42, PP 43, PP 44, PP 45 and PP 46 for Segment 6AE, 6BE and 6CE Cross Beam and Bike Path side (West and East side of the Floor Beam).

### Lift 6 West

This QA Inspector performed dimension verification for Floor Beam Stiffener to Longitudinal Diaphragm (LD) for Radius at Panel Point (PP) 37, PP 38, PP 39, PP 40, PP 41, PP 42, PP 43, PP 44, PP 45 and PP 46 for Segment 6AW, 6BW and 6CW Cross Beam and Counter Weight side (West and East side of the Floor Beam).

### Segment 9AW

This QA Inspector performed Offset measurement FL2 Flange with string line with a length of 8470mm (from Stiffener to Stiffener) and observed 16mm offset. Permissible limit is  $L/480\text{mm}$  ( $8470/480 = 17.5\text{mm}$ ).

### Signed Off Green Tag's

This Quality Assurance (QA) Inspector witnessed final tension verification for following depicted locations. Inspected 10% on a random basis and found the tension to be in general compliance and thus signed off the Green

# WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

Tags.

At Segment 6AE and 6BE for U-Rib to U-Rib (Except Big Splice location no. 27 from North) Green Tag No. 649.

At Segment 6AE and 6BE for U-Rib to U-Rib (at Big Splice location no. 27 from North) Green Tag No. 650.

Segment 6AW

The QA inspector performed inspection for the punch list item against Incident Report no. 881 for FL3-1, FL1 and FL3 floor beam sub assemblies were found distorted on the upper flange plate after the adjacent deck panel diaphragm weld connecting to this upper flange plate was changed from a fillet weld to CJP measured the dimension and found within acceptable limit.

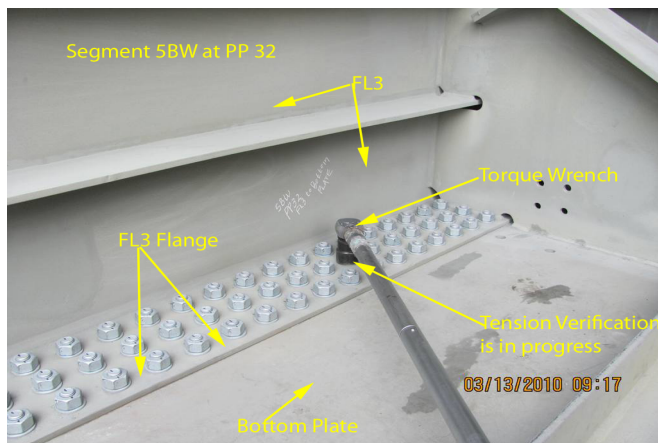
Report forwarded to team leader for further action.

Segment 6AW

The QA inspector performed inspection for the punch list item against Incident Report no. 842 for the transverse X37 deck bracket at panel point 45.75 at location E5 is distorted and misaligned with the adjacent X3S deck stiffener measured the dimension and found within acceptable limit.

Report forwarded to team leader for further action.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No relevant conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

---

## WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

---

---

<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
----------------------	----------------	-----------------------------

---

<b>Reviewed By:</b>	Miller,Mark	QA Reviewer
---------------------	-------------	-------------